SECTION **5**

SUPPORTING COMMUNITY EVACUATION

Evacuation planning in the United States has been the responsibility of local and state emergency management and law enforcement agencies. Relatively little attention has been paid to full-scale evacuations that require the maximized and coordinated use of the entire transportation infrastructure available in a community or region. In response to recent events, however, this situation is changing. State and local DOTs and public transportation systems are becoming more involved in evacuation planning, warning, response, and recovery.

This section describes activities that transportation systems may take to improve their capabilities to support community evacuations. Building on the information provided in the previous sections, this section begins with a brief overview of the evacuation process used by emergency planning agencies and then provides specific recommendations for transportation systems. The section concludes with a recommended checklist for evacuation planning.

This section only deals with those community events where the public transportation system is not directly affected (by a natural disaster or as a target of terrorist attack). Additional information on response measures for situations where the public transportation is directly affected by the emergency event is provided in a later section of this Guide.

RECENT EXPERIENCE

In the two most recent large-scale evacuations, Hurricanes George in 1998 and Floyd in 1999, emergency planning agencies learned that they may not have been as prepared for such scenarios as they had assumed. Hurricane Floyd, almost 600 miles wide and swirling with 130-mph winds and relentless rain, forced nearly four million people to participate in the largest evacuation in U.S. history. This evacuation also created the nation's largest traffic gridlock, which spanned hundreds of miles of the eastern seaboard from Florida through North Carolina.

Floyd blew ashore near Cape Fear, North Carolina, with 110-mph winds bringing 15 inches of rain in 12 hours, thereby causing post-evacuation flooding on a scale never before seen in the region. Although Floyd's size and movement made it an atypical hurricane, the probability that another hurricane will affect a populous area has increased tremendously over the last decade.[1]

The growing vulnerability of the nation's urban centers to human threats resulting from terrorism has become readily apparent. The September 11, 2001, evacuations occurring in New York and Washington, D.C., resulted in hundreds of thousands of people fleeing, many on foot. The influence of real-time rumors and fear on public behavior, combined with lost telecommunication capabilities and the inability of local transportation agencies to closely coordinate closures of major bridges, tunnels, and other critical facilities, resulted in multiple bottlenecks in both cities that left thousands of people unprotected and stranded on roadways, potentially exposed to secondary and even tertiary attacks, had they occurred.

The September 11 experiences highlight the need for well-planned and coordinated evacuations to safe and specific areas of a city in as short a time as possible. These events have also caused emergency planning agencies to investigate non-evacuation solutions to threats, such as sheltering-in-place and phased clearing and release of prioritized facilities combined with sheltering-in-place for lower risk buildings.

Other areas of concern for evacuation planners include hazardous materials shippers, chemical processing facilities, and nuclear power plants. Although these industries maintain their positive safety records, the possibility of a major event, which would require evacuation of thousands and which could strand evacuees in the path of a plume or contaminated release, has grown. Whether intentional or accidental, release of contaminated material over an urban center may require a rapid-moving evacuation, which must be much more effectively administered than those implemented for Hurricanes George and Floyd, and the evacuations on September 11, 2001.

In response, emergency planners have identified the need for increased evacuation route capacity; development of systems for better, faster, more reliable exchange of traffic flow and traveler information; and better planning and coordination of regional and cross-state evacuations.

[1] According to Brian Wolshon and Brandy Hicks Meehan, in their article "Emergency Evacuation: Ensuring Safe and Efficient Transportation of Endangered Areas," which appeared in *TR News*, Number 224, January-February 2003, pages 3 to 9, coastal populations in the southeast are expected to reach 76 million by 2010, almost double the 1993 total of 36 million, but the amount of new roadway construction to accommodate this population expansion will only increase by 1 percent over the same period.

EVACUATION PLANNING

Evacuation is one means of protecting the public from the effects of an emergency event. Protection is achieved by moving people away from the hazard. Evacuation, therefore, is perhaps best considered as a process by which citizens in an affected area are

- Moved from immediate anticipated danger to a place of safety;
- Offered appropriate temporary shelter (if they are not being returned to their homes from a workplace evacuation); and
- Enabled to return to their normal activities, or to make suitable alternative arrangements, when the threat to their safety is over.

In planning for evacuation, the characteristics of the hazard (e.g., its magnitude, intensity, speed of onset, and anticipated duration) are all significant. These factors will determine how many people should be evacuated, how far to move people to ensure their safety, what sorts of reception facilities are needed, and the extent of traffic control and security required.

Communities require evacuations in a range of circumstances as follows:

- Potential damage to property and threat to life as a result of severe weather, such as storms and tornados;
- Serious flooding or the threat of flooding;
- Threat of environmental contamination which could harm health (e.g., following an accident or fire involving chemicals);
- Danger from spreading fire, either in residential or commercial buildings or forest fires;
- Threat or actual incident of explosion, either from terrorism or a criminal-related bombing;
- Threat or actual incident of explosion, from gas pipelines or installations, or from chemicals involved in an accident or fire;
- Threat or actual incident of the release of chemical, biological, radiological, or nuclear weapons or agents; and
- Loss of essential services (e.g., power or safe water supplies).

Although some emergency situations are slow to develop, others occur without warning. There may be time for deliberate evacuation planning or an evacuation may have to occur with minimal preparation time. For evacuations with minimal notice, there may be little time to obtain personnel and equipment from external sources to support evacuation operations. Communities also recognize that the need to evacuate may become evident during any time of the day or night, offering little control over the evacuation start time.

In most communities, the primary means of evacuation probably will be personal automobiles. During an evacuation, citizens of an affected area are encouraged to coordinate with their neighbors and families to ensure that those they know are without transportation are given rides to shelters or hotels or the homes of family and friends in safe areas. It is assumed that residents of specific geographic areas will take assigned evacuation routes, predetermined by local emergency planning officials, to leave the area. Evacuation information will be broadcast by local radio and television stations and available on community web pages. Local law enforcement, stationed along the evacuation routes, will reinforce the community evacuation plan and assist those evacuees who encounter problems (e.g., vehicle breakdown, accident, and illness).

Through this process, most communities estimate that approximately 80 percent of those who need to evacuate will do so upon recommendation from appropriate local officials. Planning estimates also typically specify that, depending on the reason for evacuation and the time available to prepare, 10 to 30 percent of evacuating citizens will use community-provided shelters. The remaining evacuees will stay at commercial establishments or with family and friends until it is safe to return.

One approach to evacuation planning assumes that citizens are in their residences when evacuation warnings are issued. This approach also assumes that citizens can be reached through a coordinated public warning system whose aim is to bring about an appropriate response to avoid or minimize exposure to danger. Warning messages delivered by this system typically are designed to do the following:

- Provide timely information about the hazard;
- State what to do to reduce loss of life, injury, and property damage;
- State the consequences of not heeding the warning;
- Provide feedback to operational decision-makers on the extent of public compliance;
- Cite a credible authority;
- Be short, simple, and precise;
- Have a personal context;
- Use active verbs; and
- Repeat important information regularly.

As indicated in Figure 5-1, warning methods may include messages on radios and television, public safety siren and loudspeaker broadcasts, door knocks by law enforcement and volunteer groups, automated calling systems, the emergency alert system (EAS), and specialized audible and/or visual signals for citizens of age or with disabilities.

An evacuation can become more complicated if citizens residing in affected areas must first return home to these areas from work, school children must be returned from school, and paratransit patrons who have already been delivered to a destination of their choice have to be picked up. Under these circumstances, local communities typically pro-

Weather alert radio sounding a tone followed by a message.

The loud, steady tone of the town siren, lasting 3 to 5 minutes.

Sirens and broadcasts from loudspeakers on emergency vehicles.

Special announcements on local Emergency Alert System radio stations.

A message on a Telecommunication Device for the Deaf (TDD) for those who have registered.

Figure 5-1. Notification systems.

vide clear advice on how and when parents are to meet their children before the evacuation, and how evacuees can pick-up older or sick relatives from designated care facilities. With respect to paratransit passengers, the local system probably should have in place an emergency plan for immediately contacting those passengers who have been delivered to initial destinations and determining what time they will be picked up. Such a plan should address whether these passengers are to be taken to their homes or to an assembly site. If they are to be taken to an assembly site, the plan should address the need for their loved ones or caretakers to be notified of where they are being taken and when they are expected to arrive. This can get very complicated during an emergency event so it is recommended that it be thoroughly thought out and prepared for in advance.

If the event triggering the evacuation affects the downtown commercial or central business district (CBD) of a major city during typical office hours, then the objective of the evacuation becomes to remove people from the CBD as quickly and effectively as possible, returning them to their homes, while, at the same time, evacuating citizens who live in or near the affected downtown area. Citizens who work and live in the CBD or its environs become special cases given hat the building in which they work may have been evacuated and their home in a high rise may also have been evacuated. This situation puts such citizens out of touch with loved ones, pets, clothing, and other items, to which it may be necessary for them to have access.

THE DECISION TO EVACUATE

The decision to evacuate

- Has varying legal requirements;
- Is largely the responsibility of non-transportation professionals (i.e., primarily local and state emergency management agencies, local and state law enforcement, and elected officials); and
- Requires the availability of timely and relevant information, often generated through models and simulations maintained by the local or state EMA, in cooperation with transportation officials.

If the decision to evacuate is made too early and the hazard recedes, the evacuated community may have been exposed to unnecessary risk, inconvenience, and cost. Included is the potential for their homes, businesses, and other properties to become vandalized or burglarized because of insufficient local law enforcement. The law enforcement community will become extremely busy during such an event and generally not enough officers will be available to provide appropriate security for these structures and their contents. If the decision is made too late, the affected community may be forced either to evacuate under high-risk conditions or to shelter-in-place, accepting the effects of the hazard.

Many states and local jurisdictions have no mandatory evacuation law. Hence, the state or local official, charged with initiating the evacuation, may only recommend this course of action for an area perceived as threatened. However, typically, once the designated local official has issued a local disaster declaration, he or she may take action to control re-entry into a stricken area, the movement of people, and the occupancy of buildings within a disaster area.

As indicated in Figure 5-2, evacuations can be required for events with a range of warning times and potential impact areas.

- No-notice evacuation. In response to an imminent or existing threat, these evacuations require the immediate movement of all non-essential personnel from an affected area. Little or no pre-planning is possible under these conditions. These evacuations, although potentially smaller in scale than evacuations resulting from official warnings, such as those for hurricanes or wildfires, can be a worst-case scenario for densely populated urban centers. Local planners often have only minutes to make decisions that affect thousands of people. Under these circumstances, existing plans and procedures take on great significance. The effectiveness of the evacuation will depend largely on the quality of the established notification and mobilization process.
- Limited-warning evacuations. These are evacuations with very limited warnings, perhaps hours at the most, either in response to an imminent threat, such as a fire

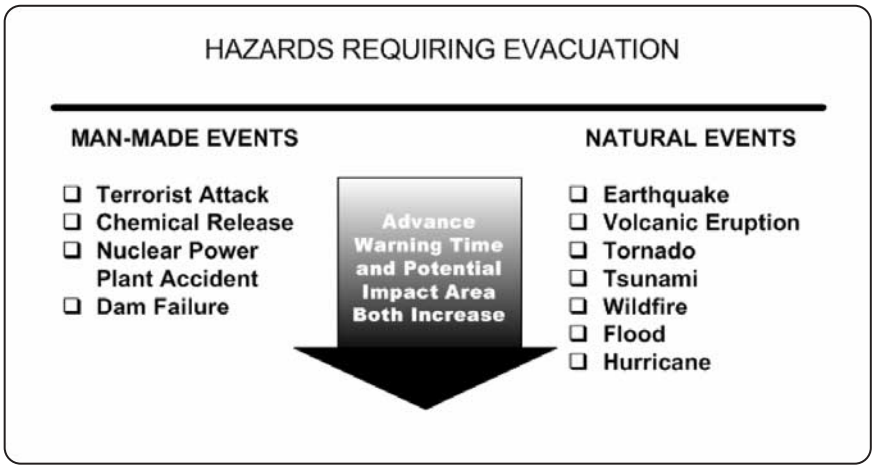

Figure 5-2. Evacuation warning times and impact areas.[2]

or a tornado, or as a precaution against escalation of an existing situation, such as flooding or heightened security threat levels. Some basic planning will be possible for these evacuations, which typically will focus on obtaining transportation to support people of age and people with disabilities and arranging for temporary shelters to be opened.

- Evacuation with warning. Under these circumstances, evacuation is required but the timing is negotiable within a period of days or weeks. Detailed and effective planning is possible. These evacuations typically are related to natural disasters, such as hurricanes or winter storms.

NEED FOR ADDITIONAL TRANSPORTATION

Given that some individuals do not own vehicles and others will need assistance in evacuating, plans should be made to provide transportation for these individuals. Local government transportation (provided primarily via school buses and other city- or county-owned vehicles), public transportation systems, mutual aid transportation resources, and contracted private transportation companies typically are called upon by their communities to satisfy this role.

In providing this support, public transportation systems typically coordinate with special facilities and registered paratransit riders to support evacuation response. Special facilities typically include the following:

- Schools and youth daycare centers, where students require supervision to ensure their safety;
- Sheltered workshops and adult daycare centers, where inhabitants may need carefully conceived instructions and support;
- Hospitals and nursing homes, where patients need specialized health care personnel and equipment to maintain their health; and
- Correctional facilities, where offenders require security to keep them in custody.

If sufficient time is available before an evacuation, public transportation systems typically may initiate special evacuation routes with designated pick-up points and destinations to safe areas, including shelters and other transportation transfer points. In addition, a telephone bank may be established to receive and process requests for transportation.

In response to the need for downtown evacuations during office hours, public transportation systems have initiated partnerships with their local EMAs and public safety agencies (e.g., law enforcement, fire and emergency medical services, and specialized response units) to coordinate fast activation of rush-hour service levels to return commuters to the suburbs.

Public transportation systems have also worked with Downtown Improvement Districts, the Federal Protective Services, local chapters of the Building Owners and Manager's Association (BOMA), associations of security directors and property managers, and hotel/motel associations to ensure that facility evacuation plans incorporate access routes and information about public transportation service. In providing this service, public transportation systems have developed special route configurations, staffing call-out plans, and dispatch configurations to ensure that resources are quickly placed. Figure 5-3 includes a description of this service provided by Dallas Area Rapid Transit (DART) for the CBD in Dallas, Texas.

RECOMMENDATIONS FOR PUBLIC TRANSPORTATION

In most communities, public transportation systems are not leading planning for and organizing evacuations. Transportation systems are designated by local emergency plan-

[2] Wolshon, Brian and Meehan, Brandy Hicks, "Emergency Evacuation: Ensuring Safe and Efficient Transportation of Endangered Areas," *TR News,* Number 224, January–February 2003, pp. 3–9.

DART recognizes that a key to the success and rapid deployment of mass transportation resources for the Downtown Dallas CBD is a good emergency preparedness plan. It means having in place an operational response that co-exists in a support capacity with both the private sector and City of Dallas' emergency support units.

DART also places a high priority on the dissemination of information via the DART media department. This department consistently liaisons with the local print, television and radio news outlets as a routine priority. Having a good flow of communication with the citizenry is of critical importance to DART, especially during a crisis.

In the event of a natural or manmade emergency incident, DART remains poised to respond at a moment's notice. In place is a 24-hour emergency telephone contact number that serves as a direct link to the DART Police Department as well as to DART's Rail and Bus Operations. Part of the community's management of safety and security is a result of a conscious design by DART to create West and East Bus Transfer Centers within the CBD.

These bus transfer centers or stations play an integral role in the emergency response plan. In addition, there exists several Rail Stations within the Dallas CBD that facilitate egress from the Downtown Dallas area. The plan also gives direction to DART personnel to process requests for assistance within the Dallas CBD.

DART believes there will be two distinct situations in which it will be asked to provide assistance: minor emergencies that have little or no affect on DART's normal level of service, and major situations of a greater magnitude that result in service interruptions. Both situations have vastly different implications on DART's internal priorities.

Certainly, the continued safety and operation of DART's system would take precedence in most situations. Because of the differences, these two areas are divided and addressed as Minor Occurrences and Major Events.

(*continued on next page*)

Figure 5-3. DART's downtown evacuation support.

ning agencies to provide specific support functions during these events. To this end, public transportation systems make a valuable contribution to the community evacuation capability, but often are not permitted to make evacuation-related decisions or to direct evacuation operations.

In supporting their communities, public transportation systems should be prepared for distinct categories of evacuation, as shown in Table 5-1. These categories are as follows:

- Evacuation, with some warning, for natural disasters only;
- Evacuation for security threat only;
- Evacuation after no-notice event, not security-related; and
- Evacuation after no-notice event, security-related.

In planning for these events, many public transportation systems coordinate closely with local emergency planners and public safety agencies in their communities to ensure that

- Transportation resources and capabilities are recognized and incorporated appropriately into local evacuation plans and protocols;
- Specific procedures are developed for initiating, evaluating, and prioritizing emergency transportation requests so that, in the event of multiple demands on the public transportation system (i.e., supporting evacuation and transporting emergency workers and supplies to the scene of the incident), procedures exist for coordinating requests for support;
- Transportation systems support and maintain general awareness about roadway conditions along evacuation routes, particularly involving construction work zone activities; and
- Local transportation resources used to support emergency response are integrated effectively into community procedures and policies on emergency funding,

- For Minor Occurrences, DART's potential response could include evacuations, command post operations, transportation of the sick or injured, Transit Police assistance and the emergency use of the High Occupancy Vehicle (HOV) Lanes.

- For Major Occurrences, DART's potential actions could include providing a safety response to the public, evacuations, and organizing for a mass casualty response.

In the event of an emergency response, Rail and Bus Operations operate at rush hour service levels. DART has a fleet of service protection buses that can be deployed to the Downtown Dallas CBD's West and East bus transfer centers. The bus operation includes initiation of bus bridges that can expedite the evacuation of large numbers of people from the Downtown Dallas area. These buses are equipped with Light Emitting Diode (LED) message boards that can display customized emergency messages for DART patrons. These evacuation resources are supported by the existing LRT system.

The DART Police Department has emergency plans in place that facilitate the deployment of uniformed State of Texas commissioned police officers to specific areas of need. Working hand-in-hand with other law enforcement agencies, the DART police force focuses on its jurisdictional priorities thus freeing outside police officers to respond to emergencies outside of DART's jurisdiction. The DART police force offers specialized services and knowledge that help create a professional and user-friendly transit system. Tactics include securing Rail Stations and Bus Transit Centers in the CBD by providing a uniformed presence at these high pedestrian traffic areas. In a time of critical need, this becomes an invaluable asset.

Additional information is available on DART's coordinated response in the Downtown Dallas Emergency Response Resource Manual at http://www.dallasalert.com.

Figure 5-3. (*Continued*).

reimbursement, and mutual aid, as well as disaster assistance from state and federal sources.

Over the last few years, public transportation systems have developed procedures for coordinating with local emergency planning agencies about the impacts of evacuation on transportation operations. This is to ensure consistent decision-making, route planning coordinated with the public transportation's existing infrastructure and capabilities to handle large numbers of people, and effective communication during evacuation. This is particularly important for situations where transportation systems choose to eliminate or re-configure normal operating service to address other demands for support.

In many cases, this coordination is managed through a formal system for requesting transportation support. Requests may be generated by an incident commander or by departments and agencies that require additional transportation support to implement emergency responsibilities. Requests for transportation support typically are made using forms such as the ones illustrated in Figures 5-4 and 5-5. Coordination between the public transportation system and the incident response or evacuation planning team occurs through a predetermined process, and requests are identified, tracked, and completed.

Systems also coordinate with local emergency planners on their integration into special plans or agreements for traffic management during evacuation conditions with the following agencies:

- State and local transportation agencies, including state DOTs and highway agencies that operate and maintain the road network in the region;
- State and local law enforcement agencies, including state, county, and city police departments responsible for public safety and traffic enforcement;
- Fire services and rescue agencies, including county, city, volunteer, and private fire, ambulance, and support response agencies that respond to events occurring on roadways;
- Towing and recovery companies that provide towing and recovery services for highway incidents; and
- Public and private traveler information providers that collect, process, and disseminate traffic and transportation-related information to benefit travelers using methods such as commercial and cable television, radio, Internet, and changeable message signs.

To ensure reimbursement for evacuation-related support, the form provided in Figure 5-6 and the Use Log in Figure 5-7 typically are completed by transportation personnel at the public transportation system.

If private carriers are part of the delivery system within the service area of the public transportation agency, appropriate

TABLE 5-1 Types of community evacuations requiring public transportation support

CATEGORY OF EVACUATION	EXAMPLES	AFFECTED GEOGRAPHIC LOCATION	PUBLIC TRANSPORTATION FOCUS
Evacuation, with Some Warning, for Natural Disasters ONLY	Hurricane, flooding, wildfires	Potentially very large, perhaps, thousands of square miles	Those segments of the community who rely on public transportation for mobility; special needs populations; and emergency response personnel who need to reach particular locations or require specialized equipment or support.
Evacuation for Security Threat ONLY	Credible threat leads community to evacuate downtown commercial district or special event	Potentially smaller geographic area, but perhaps highly populated	Using existing transportation infrastructure to quickly and effectively initiate rush hour levels of service away from threatened area. This service returns commuters to their cars and homes, and will also deliver those users, who opt to leave their cars in the city, to a designated area for pick-up, or to a shelter to wait until such time as the threat passes.
Evacuation after No-Notice Event, NOT Security-Related	Hazardous materials accident, gas leak/explosion, winter storm that disrupts electricity	Depends on the event, could range from a single accident site to a densely populated urban center	Supporting the immediate transportation needs of the affected victims and emergency responders; supporting wide scale and rapid implementation of a major urban evacuation (if necessary).
Evacuation after No-Notice Event - Security-Related	On-going threat/adverse conditions force evacuation of urban center after bombing or chemical agent release	Depends on the event, could range from a single building to a city block, to a densely populated urban center	Coordinating with local, state and federal security assessments and intelligence, transportation systems will attempt to provide rush hour service levels to return commuters. In addition, transportation operators, vehicles, and resources will support emergency responders, providing transportation to and from the event scene, and supporting immediate responder needs for specialized equipment and personnel.

provisions must be included in their contracts for the payment of extraordinary transportation services such as evacuations. If a mass evacuation is required, private providers under contract with the public transportation system often are asked to provide extraordinary services, to which, as public-spirited companies, they immediately comply. In the past this has often occurred without preparation or the support of contractual language providing for the reimbursement of costs along with a typical profit.

After the service has been delivered, it has sometimes been discovered that there are no provisions in the base contract to make the private providers whole and that the forms required by FEMA or other agencies that are necessary for them to get reimbursed have not been completed and the necessary data cannot be documented. In such cases, FEMA may choose not to reimburse the public transportation system, and, consequently, the private providers who acted in good faith during a time of crisis are left exposed. This can be avoided with appropriate language in the base agreement and the requirement for the private providers to track their delivered services according to an appropriate protocol. Having the cost per trip or the cost per vehicle hour, including deadhead time, established and agreed to before an event occurs will prevent problems. Ideally, no one should be in a position of being denied payment for real and reasonable services rendered during a critical event such as an evacuation.

CHECKLIST

Information, provided in the FTA's Rural Technical Assistance Program, Technical Assistance Brief No. 23, is highly

Passenger Transportation Request

Date:	Time:	Priority: 1 2 3
Requested by:		Organization:
Number of people needing transportation: # of Adults _____ # of Children _____		
Ambulatory: ☐ Yes ☐ No If No, list any special vehicles or equipment needed:		
Pick up from: Date/Time_____ Place/Address:_____		
People available to assist non-ambulatory passengers? ☐ Yes ☐ No If no, how many people are needed to assist? _____		
Contact at pick-up: Name:		Phone #:
Drop off: Date/Time: _____ Place/Address: _____		
Contact at drop off: Name:		Phone #:
Resources committed:		

Figure 5-4. Passenger transportation request form.

useful for transportation systems evaluating their capabilities to support community evacuation.[3] Relevant sections of that Brief are highlighted below.

PLANNING AND PREPARATION

- Will the agency participate in emergency responses? The answer is not as obvious as it may seem. Weigh the potential risks to drivers, equipment, community service, and goodwill. When the phone rings, it is too late to decide.
- Is there some type of emergency response plan already in place in the community in which service is provided? In many emergency situations, people (sometimes large numbers of people) need to be moved. No one knows how to do this better than public transportation. Unfortunately, public transportation providers are not always at the top of the list of necessary partners in creating an emergency response plan. Ideally, the following entities are involved in such planning: (1) law enforcement, (2) fire services, (3) rescue operations (which may or

[3] FTA, RTAP, Technical Assistance Brief No. 23, research and content provided by John Sorrell, CCTM, Wiregrass Transportation Authority. Written by Alan Goforth. Posted on CTAA website at http://www.ctaa.org.

Cargo
Transportation Request

Date:	Time:	Priority: 1 2 3
Requested by:		Organization:

Request transport of (describe the cargo):

☐ Loose ☐ Boxed #_____ ☐ Pallets # _____ Total weight: _____ lbs.

Receive from:
Date/Time_____
Place/Address:_____
_____
_____

People available to load the truck? ☐ Yes ☐ No If no, how many people are needed? _____

Equipment available to load the truck? ☐ Yes ☐ No Type: _____

Contact at pick-up
Name: Phone #:

Deliver to:
Date/Time: _____
Place/Address: _____
_____
_____

People available to unload truck? ☐ Yes ☐ No

Equipment available to unload the truck? ☐ Yes ☐ No Type: _____

Contact at delivery
Name: Phone #:

Resources committed:

Figure 5-5. Cargo transportation request form.

may not be separate from fire services), (4) 911 operations (which, again, may or may not be separate), (5) public works, (6) select public officials (e.g., the mayor), and (7) public transportation. The public transportation system may need to be proactive in coordinating with these community partners. Establishing contact with each agency and develop an ongoing, working relationship to share knowledge, ideas, needs, and training is desirable. Ideally, the public transportation system's own emergency response plan should be developed in cooperation with local emergency management partners.

- Has the public transportation system been invited to participate in local fire services, law enforcement, and emergency management drills and exercises? The emergency response systems in many communities periodically conduct training and exercises for disaster and even mass casualties. The public transportation system benefits from participation. Public transportation professionals learn the needs of law enforcement and rescue operations, while firefighters and police officers become familiar with public transportation vehicles and capabilities.

VEHICLE/EQUIPMENT RECORD & USE LOG

Vehicle/Equipment Type:_____

Identification or License #:_____ Odometer/hour meter reading: _____

Date Received: _____ Time Received: _____

☐ City/County Asset ☐ School District Asset

☐ Leased/Rented ☐ Borrowed/Loaned

☐ Other:

Owner: _____

Address:_____

_____

Operational Status: ☐ Good ☐ Fair ☐ Poor

Operator Provided: ☐ Yes ☐ No

Maintenance performed (if any): _____

_____

_____

_____

_____

_____

_____

Vehicle/Equipment Returned:

Date: _____ Time: _____ Odometer/hour meter reading: _____

Remarks:

Figure 5-6. Transportation equipment use record.

- Is a mutual-support agreement in place with community partners? Have the following issues been addressed:
  - The conditions under which the agreement is activated;
  - Who is authorized to activate the agreement;
  - Who controls deployed assets;
  - Who is responsible for support of deployed vehicles;
  - The terms of reimbursement;
  - Who is authorized to direct deployment of public transportation resources; and
  - Under what conditions and by whom are public transportation resources released at the end of the incident.
- Who at the public transportation system is authorized to respond and commit resources? Whether it is the manager in smaller public transportation agencies or a senior operations staff member in larger ones, someone should be enabled to make decisions on the spot.
- Do employees understand their roles in an emergency? The time to inform employees is long before they receive an unexpected call at 3 a.m. Ideally, a policy should be in place to deal with employees who decline to participate because of fear or other reasons. In some cases, drivers or their family members may themselves be victims of the emergency event.
- Is union leadership participating? Make the union an ally by working together from planning through execution.
- Is a manager available to respond around the clock? Provide local 911 units with a primary contact and one or more backups.

USE LOG

Date	Mileage Start	Mileage End	Operator	Mission Description

Figure 5-7. Transportation equipment use log.

- Can vehicle operators and other potential drivers be easily contacted? Employee phone numbers and addresses can change daily. Ideally, drivers should notify the agency of any changes, including changes to cell phone numbers, promptly.
- Have human service agencies that contract with public transportation systems been contacted to establish a coordination plan to be implemented in an emergency? In an emergency, everything changes. Do the people who depend on the public transportation system for service understand this? Make human service agencies aware of the role of the public transportation system in an emergency, and notify them as soon as possible after disaster strikes so they can adjust their schedules. Many people plan their lives around the service provided by the public transportation system.
- Is maintenance support ready? Emergency response strains equipment as well as personnel. Plan for maintenance needs, including tires, fuel, wrecker service, and maintenance support, well before they are needed. The agency's insurance carrier should be consulted about coverage limits in an emergency.
- Does the public transportation system rely on part-time vehicle operators? Some operators may also be first responders or have other commitments during an emergency. Know in advance who will be available, and when.
- Where does public transportation management report in an emergency? Ideally, system managers should be in place to coordinate activities with response teams and vehicle operators. Ideally, they should know where to go when disaster strikes. Identify an alternate location

in case the disaster prevents access to the primary reporting site.

- Where will public transportation vehicle operators report? Select a convenient initial meeting place where operators can report and be debriefed on the emergency. This also provides an opportunity to assess the availability of buses, other public transportation and paratransit vehicles, and operators before their deployment. Ideally, establish an alternate location.
- Is the communications infrastructure in place? Because emergency evacuations and disaster responses are complex and dynamic, constant communication is critical. Locate a member of the public transportation agency on site to coordinate communications with police, fire, and public works officials. Ensure that managers can communicate with operators and that drivers can communicate among themselves. If communications units are battery-powered, make replacement batteries or rechargers available.
- Is dedicated transportation available for the on-site public transportation manager? Make an official vehicle available to provide access into restricted or controlled areas. The vehicle can also be equipped to serve as a communications platform or a command post.
- Have the resources necessary to augment the agency been identified as those required in an emergency? Know what resources may be available from surrounding communities, counties, and jurisdictions. These may include school buses, local senior center transportation vehicles, church buses, and vehicles from other public transportation systems, the military, and local charter companies. However, just because resources have been identified, do not assume that the owners will cooperate. Meet with them and establish a plan that is agreeable to all parties.
- Who is in charge of the vehicles? A well-defined chain of command is essential to smooth operation.
- Who provides operator and vehicle support for augmentation vehicles? Vehicles can be provided with their own support resources, or they can be integrated into the existing support structure. Integration of communication systems is especially important.
- What procedures are in place to guarantee that the content of the system's emergency response plan remains current and viable? Over time, the emergency response plan will evolve and change. Ensure that any changes are reviewed and finalized in conjunction with local emergency management partners. Provide updated copies to make partners aware of changes.

NOTIFICATION AND DEPLOYMENT

Even with the best of preparation, the onset of an emergency is always chaotic. The best approach is to adapt and improvise as needed. Answering these questions helps prepare for notification:

1. Was needed information such as the following received?
   - Verification (usually by E-911 personnel),
   - The nature of the emergency,
   - Vehicle requirements,
   - Location of disaster,
   - Bus assembly area,
   - Report time for first resources,
   - Marshalling area, and
   - Recall procedure.
2. Have the following steps been accomplished?
   - Notifying operators,
   - Initiating driver recall procedure,
   - Notifying management team (including labor leadership),
   - Providing current information to operators, and
   - Identifying the assembly point for operators.
3. Has on-site management accomplished tasks such as the following?
   - Requesting an immediate update;
   - Assessing where public transportation and paratransit vehicles are needed, the risk to operators and vehicles, where to transport passengers, the existence of extraordinary conditions, and the location of dangerous or off-limits areas;
   - Establishing communications with vehicle operators on vehicles and the public transportation base station;
   - Double-checking communications with all relevant parties;
   - Locating shelters and evacuation points;
   - Determining the special needs of people to be evacuated;
   - Staying aware of changes in command as the situation develops; and
   - Referring all media requests to the staff member identified as the system's spokesperson or public information officer (PIO).
4. Has public transportation operations/base accomplished tasks such as the following?
   - Notifying support agencies that regular service will be eliminated or delayed;
   - Informing recipients of contract service;
   - Activating maintenance and support agreements for fuel, tires, wrecker support, and maintenance;
   - Retaining as much routine local service as is feasible;
   - Retaining all critical service delivery such as trips to dialysis sites; and
   - Determining if special equipment is required, such as filters, safety clothing, special eye protection, safety boots, fire-retardant clothing, or vehicle decontamination.

RESPONSE AND EVACUATION

When an evacuation plan is activated, implement all of the prior planning, but remain flexible enough to respond to new situations as they arise. Attend to the following details:

- Have drivers maintain separate evacuation logs, which will help with reimbursement and quantify the level of support provided.
- Have the system keep track of those passengers of age and passengers with disabilities who have already been transported to initial destinations so that such passengers can be picked up and delivered home, to an assembly site, or another approved location. Keep a list of the names, addresses, shelters, and disability of each passenger to ensure that passengers are returned or delivered to the proper locations. This list also helps healthcare providers find their patients.
- Bring healthcare providers along when evacuating a healthcare facility or nursing home to serve as vehicle aides or personal care attendants. Operators must remain focused on driving, so ideally these attendants should be from an outside agency. Avoid using paramedics for this purpose, because they will be needed for emergency response. Ensure that the system is aware of potential liability when working with volunteers. Seek advice from an attorney and consider developing and implementing a release form to be signed by volunteers.
- Determine refueling points. Vehicles stranded for want of fuel are of no help in evacuation efforts. Operators and managers need to be aware of the remaining fuel capacity, especially of vehicles removed from regular service delivery to accomplish evacuation duties. Ideally, readings from the last refueling should be quickly accessible in such circumstances so as to determine the remaining services distances possible. When evacuation can be planned, it is preferable to use only vehicles that have recently been fueled, if this can be determined. Alternative-fuel vehicles may have significant limitations in refueling options.
- Determine the locations of first-aid facilities. Operators may need this information for themselves or for passengers.
- Determine the locations of rest areas for operators. Evacuation work is mentally and physically draining. Operators need regular breaks if the work lasts more than a few hours. Enact a rest-and-rotation schedule if the evacuation continues beyond a normal shift.
- Establish a feeding schedule for public transportation operators. The Red Cross often handles such arrangements—be aware of Red Cross locations, and convey that information to drivers. Be aware of danger zones and off-limits areas and update information on such areas constantly, especially if there is a biohazard, chemical spill, or nuclear material release.
- Identify buses and paratransit vehicles that may be used as rest areas and to provide shelter from heat, cold, or rain. Let the IC know which ones are available and where they are located.

RECOVERY AND RESTORATION OF SERVICE

The job is not over when the emergency is under control—what occurs after the emergency is under control often is the most difficult and complex phase of evacuation. Vehicle operators and passengers often are exhausted physically and emotionally, so staying focused on bringing the operation to a successful close is important. Accomplish the following actions:

- Transport individuals home. Start only after the IC gives an approval. This usually involves taking people from central assembly sites to their homes. It may work best to consolidate transit and paratransit vehicles going to support facilities other than residences (for people who lost their homes).
- Account for all passengers who are of age or who have disabilities. Use a list to make sure each individual is accounted for and returned home. Ensure that they physically enter the building or that someone is there to assist them.
- Make the system available to transport first responders and support personnel. These people probably will have moved repeatedly as the emergency developed and will need to be returned to their cars or homes.
- Remain on site until the last transit and paratransit vehicles are released. Have the on-site manager remain until the last vehicle is off the road and the last evacuee is accounted for. This also is a good time for operators to collect their thoughts, gather information, and exchange impressions with emergency staff.
- Release public transportation and paratransit vehicles as they become free. A suggested rule of thumb is to release augmentation resources first, then internal assets on a first-in, first-out basis.
- Collect log sheets and compile usage data. Have a designated representative at the depot, garage, or yard collect and review all log sheets before operators are released. Ensure that buses are refueled and after-operations are performed.
- As soon as possible after the incident, begin the reimbursement process. Coordinate with the responsible agency to determine accounting codes and procedures for submitting invoices for incurred costs, as well as interfacing with any contracted service providers used during the emergency.
- Cycle all public transportation and paratransit vehicles through a maintenance check.

- As soon as possible, resume normal operations. Re-establishing a familiar routine is one of the best ways to calm operators and passengers after a crisis.
- Begin preparing an after-action report, as soon as possible after the emergency, seeking comments from everyone involved. Vehicle operators are excellent sources for establishing what worked well, in addition to the identification of areas for improvement. The tone of the written report may very well be critical but should also remain fair.
- Generate a post-incident critique. Use this opportunity to build relationships and learn what others thought of the system's participation.